Journal of Hydrology, 142 (1993) 499–500
Elsevier Science Publishers B.V., Amsterdam

Contents

Research Papers

Hydrological pathways and solute chemistry of storm runoff at Dargall Lane, southwest Scotland
L. Giusti (Oxford, UK) and C. Neal (Wallingford, UK). 1
A class of exact solutions for Richard's equation
D.A. Barry, J.-Y. Parlange, M. Sivaplan (Nedlands, W.A., Australia) and G.C. Sander (Nathan, Qld., Australia) 29
A comprehensive surface–groundwater flow model
J.G. Arnold (West Lafayette, IN, USA), P.M. Allen (Waco, TX, USA) and G. Bernhardt (Austin, TX, USA). 47
Analysis of storm hydrograph and flow pathways using a three-component hydrograph separation model
O.O. Ogunkoya (Ile-Ife, Nigeria) and A. Jenkins (Wallingford, UK) 71
Rapid changes of the surface soil heat flux and its effects on the estimation of evapotranspiration
E. Malek (Logan, UT, USA) 89
A diffusion wave finite element model for channel networks
G.E. Blandford and L.E. Ormsbee (Lexington, KY, USA) 99
Towards a systematic approach to comparing distributions used in flood frequency analysis
B. Bobée, J. Bernier, P. Rasmussen (Quebec, Que., Canada), G. Cavadias (Montreal, Que., Canada) and F. Ashkar (Moncton, N.B., Canada) 121
Spatial and temporal variability in streamflow generation on the West Fork of Walker Branch Watershed
D.P. Genereux, H.F. Hemond (Cambridge, MA, USA) and P.J. Mulholland (Oak Ridge, TN, USA). 137
Use of radon-222 and calcium as tracers in a three-end-member mixing model for streamflow generation on the West Fork of Walker Branch Watershed
D.P. Genereux, H.F. Hemond (Cambridge, MA, USA) and P.J. Mulholland (Oak Ridge, TN, USA). 167
Effects of sludge disposal on groundwater nitrate concentrations
R.F. Spalding, M.E.Exner, G.E. Martin and D.D. Snow (Lincoln, NE, USA) 213
Physical properties governing groundwater flow in a glacial till catchment
M.J. Hinton, S.L. Schiff and M.C. English (Waterloo, Ont., Canada). 229
Critical shear stress and critical flow rates for initiation of rilling
J.E. Gilley (Lincoln, NE, USA), W.J. Elliot (Columbus, OH, USA), J.M. Laflen (West Lafayette, IN, USA) and J.R. Simanton (Tucson, AZ, USA) 251
Changes in the hydrological response of a small Mediterranean basin a year after a wildfire
J. Lavabre, F. Cernesson (Aix-en-Provence, France) and D.S. Torres (Barcelona, Spain) . . 273
The application of a continental-scale radar database to hydrological process parametrization within Atmospheric General Circulation Models
C.G. Collier (Bracknell, UK) 301
The planimetric and geometric properties of the channel bends of low-energy streams in a forested humid tropical environment, southwestern Nigeria
F.S. Ebisemiju (Ado-Ekiti, Nigeria) 319
A scaling-based interpretation of a field infiltration experiment
T. Vogel and M. Císlerová (Prague, Czechoslovakia) 337
Groundwater pollution source characterization of an old landfill
P. Kjeldsen (Lyngby, Denmark) 349
Forecasting heavy rainfall from rain cell motion using radar data
P.J. Brémaud and Y.B. Pointin (Clermont-Ferrand, France) 373

Assessment of runoff enhancement by randomized cloud seeding in a case of carry-over flow
A. Ben-Zvi (Jerusalem, Israel) and M. Langerman (Shaham, Israel) 391
Sources and controls of aluminium in storm runoff from a headwater catchment in Mid-Wales
A.D. Muscutt, H.S. Wheater (London, UK) and B. Reynolds (Bangor, UK) 409
Modeling annual variations of spring and groundwater temperatures associated with shallow aquifer systems
J. Bundschuh (Tübingen, Germany) 427
The effect of gauge sampling density on the accuracy of streamflow prediction for rural catchments
M.R. Duncan, F. Fabry (Ste. Anne de Bellevue, Que., Canada), B. Austin (Salford, UK) and G.L. Austin (Auckland, New Zealand) 445

Technical Note
A non-linear system model for basin concentration
R.-J. Zhao (Nanjing, People's Republic of China) 477

Discussions
Review of acid-deposition–catchment interaction and comments on future research needs — comment
H.M. Seip (Oslo, Norway) 483
Review of acid-deposition–catchment interaction and comments on future research needs — reply
E.C. Krug (Washington, DC, USA) 493

Erratum 497